FAI ENVIRONMENTAL COMMISSION

Fédération Aéronautique Internationale

Minutes

of the Annual Meeting

FAI Environmental Commission

held in Paris, France
on 14 February 2015
at the Aero Club de France

March 24, 2015

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ATTENDEES

PRESENT

President	Mr. Pierre Duval (PD)
Vice President	Mr. Bernald Smith (BS) (also USA Delegate and Representative of IGC)
Germany	Miss Denise Kluge (DK) (Delegate)
Italy	Mr. Andrea Tomasi (AT) (Delegate)
Sweden	Mr. Rolf Bjorkmann (RB) (Delegate)
Russia	Mr. Sergey Ananov (SA) (Delegate)
Secretary	Mrs. Diana King (DKi) (also United Kingdom Delegate)
Hungary	Orsolya Diófási (OD) (Observer)
FAI	Ms. Susanne Schödel (FAI Secretary General)
FAI	Mrs Ségolène Rouillon (FAI Members and Services Manager)
In attendance for part of meeting	Vladimir Ivanov (President of Federation of Aeronautical Sports of Russia)

APOLOGIES FOR ABSENCE

New Zealand	Elizabeth King

PROXIES

None had been received.

1. Welcome and Opening Remarks

The EnvC President, Pierre Duval, welcomed the delegates to the Aero Club de France and called the meeting to order at 09.00 hours.

2. Remarks by Susanne Schödel, FAI Secretary-General

Susanne Schödel (SSC) reported that the NAC membership fees only part of the FAI costs and that other sources of income are therefore essential to enable the current level of work to continue, with 8 permanent and 2 temporary staff members.

She recapped on the Strategic Plan of 2012 and the need for increased visibility of air sports, which could lead to more media and sponsorship opportunities. Breitling provides sponsorship, and the focus is on three events, these being the Gordon Bennett (gas balloon air race), the Sailplane Grand Prix and the Aerobatics World Championships. The sponsorship is re- evaluated yearly and keeping up with these brands' requests (most notably Breitling) is a challenge for the FAI structure and Sports.

The revised FAI Vision and Mission had been approved at the 2014 General Conference and the essential activities to fulfil the mission had been agreed. SSC briefly outlined the 2015 budget and the structure and statistics of the FAI. She explained the Expert Group and Technical Commission system, with a member of the Executive Board being a point of contact for each Expert Group or Technical Commission. In the case of the Environment Commission, the point of contact is Niels-Christian Levin Hansen.

In a move to increase visibility and promotional opportunities, the FAI would be represented at the European Council of Airshows in Antwerp later in the year. There

were also plans to exploit the opportunities involved with the World Air Games, due to be held in December 2015 in Dubai, which is a country that offers strong support for airsports, especially skydiving. The FAI would also be at SportAccord (the meeting of all International Sport Federations) in Sochi. Contacts with the IOC and World Games were increasing.

3. Approval of the Minutes of the last meeting in Rome 8 Feb 2014

It was agreed unanimously that the Minutes be accepted.

4. President's Report

4.1 PD presented his view of the situation for the Environment Commission. The Commission was under attack because of its role. In its early years it was easier to show effective progress with identification of topics, communications with ASCs and the development of the website. With maturity, it has become more difficult to sustain the interest of the ASCs, with slow-moving projects, lack of a clear FAI strategy with which to align environmental projects and the lack of money.

The FAI had become totally focussed on competition and there was little practical opportunity for EnvC to create a competitive activity, especially since the demise of FAME, which might have facilitated the staging of a multi-disciplinary (aircraft/cars/ motorbikes) electric powered race. A route to try is the development of electric-powered aerobatic aircraft or low emission/low noise light aerobatic piston aircraft.

4.2 Projects that had not progressed as hoped were:

- finding an ambassador; PD suggested that Aude Lemordant, the current Women's World Aerobatic Champion, could be put forward. He had already approached her with a suggestion that she could be the official pilot of the first electric aerobatic aeroplane, when one is available, and she had accepted.
- preparing a presentation for the ASCs; the EnvC delegate who had volunteered had failed to deliver and PD was not willing to do the whole job himself.

4.3 PD thanked several members of the Commission for their support and contribution.

5. Secretary's Report

DKi apologised that she had been unable to make much progress during the year due to ill health. She made a number of comments and suggestions about the work that EnvC does or might do in future.

- The concept of environmental sustainability needed to be embedded in all air sports.
- She suggested that, as a considerable amount of environmental work can be developed at grass roots level, it could be fruitful for EnvC to find ways of communicating more directly to grass roots clubs. In particular, model flying can have a low environmental impact and could be a useful place to make progress.
- Electric aircraft are only truly environmentally sustainable if their electricity comes from a renewable energy source.

AT commented on the President's and Secretary's reports:

- The ASCs are not interested in long term projects, because they have to deal with short term (e.g. competitions) and have no resources to look further ahead. However the EnvC has to look at things long term.

- Proposals for electric flying must be promoted in a very scientific way, including for example the fact that electric engines (whatever the sources of the electricity) are far more efficient than internal combustion engines.
- The EnvC should work to encourage NAC delegates to take more part in the EnvC's work, including attending the meetings.

6. Reports from Air Sport Commissions

IGC Bernald Smith

BS reported that competition regulations required compliance with local environmental rules.

7. Reports from NAC Delegates

7.1 Pierre Duval, on behalf of France

PD reported on an active and successful year for the Aero Club de France.

- 200 participants had attended a one-day symposium on Aviation electric propulsion.
- An in-depth study had been undertaken at some critical sport aviation airports, in conjunction with DGAC, local authorities and neighbours, to redesign low altitude patterns taking into account population, altitudes, type of flying and prevailing winds.
- A new DGAC noise measurement tool had been launched, to help classify aircraft into noise categories, enabling easier negotiations with anti-aircraft noise associations.
- A new active exhaust noise silencer for GA had been developed, but this does not tackle the 40% of the noise that comes from the propeller.
- UL91 was becoming more available.

7.2 Diana King, Delegate (UK)

DKi reported on the significant take-up of Eurofox for glider towing and for light sport aircraft, three nominations by UK members for the Angelo d'Arrigo Diploma, of which one had been submitted to the FAI, continuing conflict between airfields and wind turbines and a company undertaking a new design of electric aircraft. Her written report would be circulated and is attached (Appendix 1).

7.3 Rolf Bjorkmann, Delegate (Sweden)

RB reported on a strategy to encourage clubs to move to new fleets, mainly for reasons of cost rather than environmental concerns. Many gliding clubs had moved to microlights for their towplanes, for the same reason.

7.4 Sergey Ananov, Delegate (Russia)

SA reported on the development of Eco spots within Russia.

7.5 Denise Kluge, Delegate (Germany)

A written report by DK had been circulated (Appendix 2), covering plans for a biodiversity project and airspace problems associated with the planned construction of Südlink, involving high voltage power lines to carry wind generated power from the north to the south of Germany.

7.6 Orsolya Diófási, Observer (Hungary)

OD reported that there was no Hungarian environmental commission, but that projects had been started for competitions, focussing on simple, low cost actions intended to achieve a small improvement on environmental sustainability and to

create more interest in environmental matters.

Other members commented that a description of the project could be circulated to all airsports to consider for their competitions. It could also be promoted as a project for clubs and airfields to adopt.

7.7 Andrea Tomasi, Delegate (Italy)

AT reported that there was an Italian company developing electric aircraft. The performance and the scientific results of their electric gliders developed are to be published in aeronautical and scientific magazines. If their scientific results (in term of reduction of carbon dioxide emission) are verified, this company could be a very good candidate for the nomination of the next Angelo D'Arrigo Diploma.

7.8 Bernald Smith, Delegate (USA)

BS reported that the size of the country made dissemination of projects difficult. Some work was under way for the development of batteries and electric engines.

8. EnvC conversion to Expert group – discussion and vote

There was a lengthy discussion over the alternative options of remaining a Technical Commission or converting to an Expert Group. SSC presented Beat Neuenschwander's presentation on the workings of expert groups the Expert system as a whole. The role of the Expert groups was to give recommendations on airsport relevant topics on their initiative or on the request of the Executive Board, which would then be taken forward for action, and to provide a service with their expert statements for other sectors of the FAIThis is in distinction to the Commission's work on concrete projects like competitions and rules and regulations. There was also a distinction between working for the environmental protection community or for the whole flying community. If the latter, environmental work should address recreational flying as well as competitive sport flying. The general consensus was that the EnvC worked for the whole of sporting and recreational aviation

On a vote, it was agreed by a majority of five to none, with one abstention, to state that the members of the Environment Commission believed that it should remain as a Technical Commission.

SA agreed to sum up the issues with a one-page paper, for review by other Commission members and submission to the Executive Board. PD advised, and it was acknowledged, that the Commission had to demonstrate added value, with useful work and advice for the FAI, in order to justify its continuation. The EnvC members must commit to delivering specific, visible work that supports air sports.

9. 2015 – 2016 Priorities and Plan

9.1 Newsletter

It was agreed to produce a quarterly two-page newsletter, which PD agreed to edit. It should carry the FAI logo and each NAC would be permitted to add their own logo. Distribution would be via NACs and ASCs. The first issue should be produced within the next month and all EnvC delegates present were asked to produce a small piece to PD by the end of February.

The next issue should carry the results of the Angelo d'Arrigo Diploma nominations.

9.2 Code of Conduct

It was agreed that the aim and purpose of the Code is for dissemination through the FAI, to the NACs and from there to clubs and individuals, for understanding of the issues and for action.

The best mechanism for updating the Code was discussed. It was recognised that there were several different versions of an FAI Environmental Code and that this was

confusing and unhelpful. DKi suggested that a better format could be to have a first section containing all the generic items which were relevant to all forms of air sport, followed by sections specific to each sport, each of which would probably need to be no more than half a page. The target agreed was to have it complete and ready to publish by the autumn.

OD agreed to take the project on and DK would help to finalise it.

9.3 Website

Two major aspects were needed to update the EnvC section of the FAI website, which would then feed through as news onto the FAI home page.

- The relevance and appropriateness of the technical documents needed complete revision, with an update of the whole body of documents.
- The website needed to be kept active and live, with new content and news. The aim should be to post something at least once every three months.

SR would be able to keep the website updated, provided that members of the Commission feed the news to her.

9.4 Motor sport federations

PD proposed that ideas from other motor sport federations should be reviewed to see what could be re-used for the purposes of air sport.

OD agreed to compare motor sports' environmental codes with the FAI environmental code. DKi could request advice and information from a colleague and SA would contribute an analysis of motor versus air sport from his own experience and knowledge. A systematic approach to the comparison was needed.

An outline of the results should be presented on the website and in the newsletter.

10. Executive Board Task List

10.1 Environmental Ambassador

The role would be to present promotional messages and provide support on the website for environmental projects.

PD asked all delegates to consider suitable names for this role. In the absence of any other suggestions, it was agreed that Aude Le Mordant would be a suitable first holder of the title. It was suggested that, in subsequent years, the winner of the Angelo d'Arrigo Diploma could be asked to take on the role for 12 months.

10.2 Presentation of Sport Aviation and the Environment

The purpose of the presentation would be for the NACs and ASCs to use to present, for example, to sponsors or host cities, to promote the environmental credentials and explain the impact of air sport. Agreed there should be a few slides on general content relevant to all air sports plus a few on each specific sport.

A project manager would be needed to co-ordinate the whole project. To make a start, several delegates agreed to prepare material on specific sports:

- SA – rotorcraft
- AT – gliding
- PD – aerobatics
- DK – model flying

SR agreed to prepare the presentation from the text and materials supplied by delegates.

10.3 Support to CIVA on the development of low emission aeroplanes

PD was leading on this project and would welcome any help.

10.4 Support the creation of Certificates of Airworthiness for electric aircraft

PD was leading on this project and would welcome any help.

10.5 Suggest further future tasks on environmental issues

OD presented a system used in Hungary, which involves external environmental audit of events. If adopted, event organisers could use the environmental accreditation as part of their promotional activity. SS suggested that the FAI event sanction fee could be reduced if the event passed an external environmental audit and that the reduction in the FAI fee might be sufficient to offset the auditor's fee and other costs.

There was a discussion of how such a scheme could be funded, how auditors would be trained and whether it could work as a purely voluntary commitment. It was suggested that EnvC should provide the methodology and exact requirements of the scheme, including the credentials and standard of the auditors. It might be feasible for each NAC to send individuals for training (possibly by the Hungarian company where OD works) in order to be qualified to carry out audits in their own country.

It was proposed by BS, seconded by PS and agreed that the following actions should be taken:

- Provide the information to the NACs and event organisers to use if they wish. This information can be disseminated through a presentation at the ASC Presidents' meeting and at the meeting of Presidents of Active member NACs. The information would also be distributed to all NACs.
- Event organisers should be encouraged to adopt the scheme, initially as a voluntary practice.
- FAI to set up training for auditors.

11. Angelo d'Arrigo Diploma

Four nominations had been received and supporting presentations were made by the delegates from Russia, France, UK and Italy. It was agreed that the nominations were of a sufficient standard that the award should be made. On a vote, the Russian nomination received six votes and the UK nomination received one vote. It was therefore agreed that the 2014 Angelo d'Arrigo Diploma should be awarded to the Ultralight Aviation Club of Moscow Technical University of Civil Aviation, for organising and supporting the aviation part of the project for regeneration of the disappearing white crane (sterkh) population on Yamal peninsular, from 2005 until the present day.

12. Update on EnvC topics

New fuels availability

BS reported that the FAA has announced that there are three companies testing new aviation lead-free fuel, preparatory to using them for aviation. This Piston Aviation Fuels Initiative was working towards lead-free fuels, compatible with the current engines and distribution network. The new fuel would probably be available for use in 2018, at a cost anticipated to be the same as currently used fuels.

13. Elections

President – Pierre Duval was nominated and elected unanimously.

Vice-Presidents – Sergey Ananov was nominated and elected unanimously.

Secretary – Diana King was nominated and elected unanimously.

14. Next Meeting

It was proposed that the next meeting should be in Moscow in late February and this was approved. The dates would be dependent on various schedules, especially those of the Russian hosts. It was also noted that the need for a meeting would depend on the outcome of the General Conference vote on the future status of the Environmental Commission.

The meeting closed at 17.05.

Minutes prepared by:
Diana King
Secretary, FAI Environmental Commission
19 February 2015

Appendix 1

UK Report to FAI Environmental Commission 2015

Whilst general interest in environmental matters is not very obvious, there have been some interesting projects and developments going on in the UK.

Eurofox

The arrival of the Eurofox in the UK has created a great deal of interest among UK pilots, with 45 now on the British register, of which 17 are being operated as glider towplanes. There are several more under construction. The attraction of the aircraft has largely been its ability to operate with much lower fuel consumption (and therefore lower cost) as well as the easy maintenance and reduced noise. For gliding clubs, where the towplane may do numerous circuits during any one day, the Eurofox provides the opportunity to operate a quiet aircraft in place of the much noisier old planes, which creates better relations with neighbours.

There are also other lighter aircraft coming into use which have similar advantages.

Angelo d'Arrigo Diploma

Having found no interest in the Diploma in its first year and even during the official nominations period for its second year, for some reason when the closing date was extended there was considerable interest in the Diploma, with three nominations being submitted to the Royal Aero Club. One, relating to human powered flying, is being proposed to the Commission.

The other two nominated were, first, Aeropro, the manufacturers of the Eurofox, for the innovative design which enables lower fuel consumption and noise impact and, second, the British Balloon and Airship Club Training team, for their seminars to help to promote awareness of the environment in which they fly.

This sudden surge of interest may indicate a new growth in interest in the environmental impact of our activities.

Renewable energy

The level of concern about wind turbines continues to be high. Several significant airfields in the UK are threatened by proposed developments. Some airfields are at risk of their activities being severely curtailed if not completely stopped if the turbines are built.

The CAA has secured funding to undertake research into the possibility and effect of turbulence in the lee of turbines. This research is being undertaken at Liverpool University and it is expected that the report will be published shortly.

Electric Aircraft

I have received the following report from a company which is designing innovative new electric aircraft, intended initially for setting records and with a plan to move on to racing.

Electroflight Story.....

Electroflight story started four years ago, when it became evident that the emerging battery and electric motor technology, would allow for a spectacularly high performance sport race, pure electric aircraft.

Electric aircraft that are emerging, are all fairly low power, with big wings and focusing on an endurance of at least an hour, rather than performance. Roger Targett set about designing a ground up electric sport race aircraft that would have a flight time of approx. ten minutes,

which would be enough time to establish speed and time to climb records followed by establishing a Formula Electric Air Racing Series….As it is, the average time through the track for Red Bull Race aircraft is a little over sixty seconds and most air show displays are between five and ten minutes in duration

The Electric air race series will push the development of batteries , electric motors and their control systems in aerospace as well as a 'Hearts and Minds' exercise, to make the public aware of electric aircraft possibilities, so when in the future, they are faced with boarding an electric/hybrid powered airliner, they know it works!

The architecture of modern electric motors allows two motors to be mounted together, one shaft driving through the middle of the other, contra rotating. This gives a huge amount of power in a given size of airframe, eliminates torque, gives redundancy and shares the power drain from the battery pack. The advantages of electric propulsion in aerospace are significant and General Aviation, where most aircraft are single engine. Pilot fatigue will be reduced due to the almost total lack of noise, vibration and fumes. Electric propulsion will be easier to simpler to operate, reducing the work load on the pilot.

Electroflight MOU signing with Williams Advanced Engineering

At Electroflight we can see the potential and are excited at the possibilities that high powered, high performance pure electric aircraft will be capable of and what it will bring to general aviation. As the battery technology continues to improve, so the range will increase but at the moment, the current battery power density levels will give us an aircraft with enough endurance to establish significant electric aviation records. The calculated performance of our single seat P1 Sport Race Aircraft will surpass other aircraft in its size and weight category….!

Roger Targett
CEO Electroflight Ltd
www.electro-flight.co.uk

Diana King
Delegate to EnvC
Royal Aero Club of the UK

12 February 2015

Appendix 2

German Report to FAI Environmental Commission Meeting 2015 – February – 14. 2015, Paris, Headquarters Aéro Club de France

by Denise Kluge (DAeC Delegate)
Environmental Officer Deutscher Aero Club (DAeC)

1) New project "Biodiversity and air sports"

We are still in the UN-Decade for Biological Diversity (2020). To implement the theme "Biodiversity" in the aviation sport even more a project is planned for this purpose. The idea is to start a photo-competition with the topic "Biodiversity on and around airfields" and take the winning photos to design a photo calendar.

2) High voltage power line –"SuedLink"

The result of the energy revolution in Germany is not only the development of renewable energies, it must also be ensured that the energy generated by wind power will get from the north to the south of Germany. This will be achieved by the construction of the high voltage power lines like "SuedLink" as the biggest one.
The Transmission Network Operator "TenneT" has initialized a public participation and included these results in the planning of the power line.
The main problem for air sports is that all Transmission Network Operators considered airfields as runways only, they didn´t realize that there is an airspace above. Since airfields are affected by the construction of this power line the DAeC is in conversation with the Federal Network Agency and the Transmission Network Operator to find a solution. A binding route for the power line "Suedlink" will be certain estimated in two to two and a half years.